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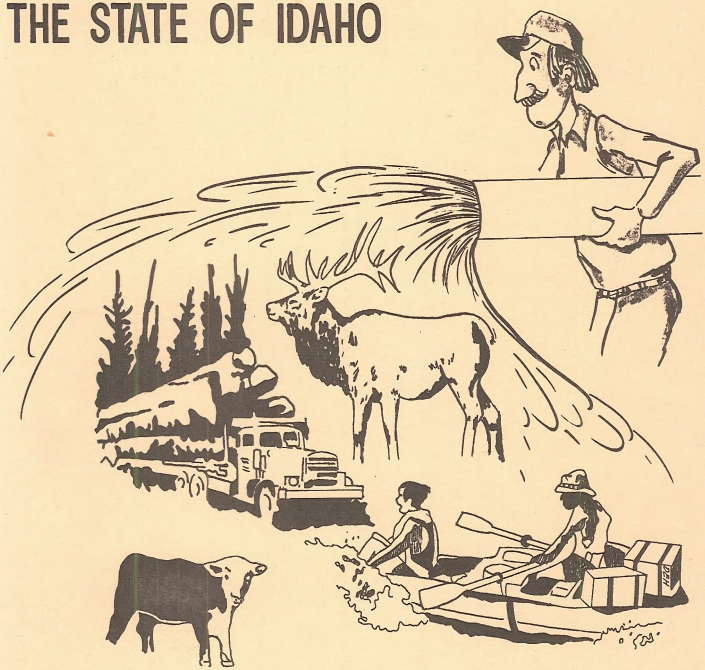

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WATER MANAGEMENT PROGRAM

FOR THE

STATE OF IDAHO

U.S.D.I. - BUREAU OF LAND MANAGEMENT

Prepared by _____ Hydrologist, Coeur d'Alene District — Date: August 7, 1978

Recommended By _____ State Office Hydrologist — Date: August 14, 1978

Recommended By _____ Chief, Division of Resources — Date: Sept 7, 1978

Approved By _____ State Director, Idaho — Date: Sept. 29, 1978

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Acknowledgements

Portions of this document are based on earlier works prepared by State Office Hydrologists in Montana (Mike Whittington), Wyoming (Richard McQuisten), Colorado (Bruce VanHaveren) and New Mexico (Herb Garn).

Acknowledgements

Special acknowledgement should go to Steve Sagstad who prepared this document in the absence of a State Hydrologist in order to meet AWP requirements. Cover design by David E. Hannans.

Karl Gelhardt

State Hydrologist

ABSTRACT

The Water Resources Program, as developed and documented here, is intended to provide guidance for the land managers and field specialists so that the water resource will be properly considered in Bureau program planning and implementation. This program involves the application of the science of hydrology as a component of the BLM watershed activity. Specifically, the purpose of the program is to create an awareness of the water resource, to provide guidance to our Bureau's hydrologist to help him understand what his functions and responsibilities are, and to provide the basic framework for implementing a comprehensive, state-wide water management effort.

The objectives of the program are to protect, maintain and enhance the water resource, provide water for all resource activities, establish and maintain a continuing inventory of the resource, provide the hydrologic skills for conducting inventories and providing information to management, coordinate BLM activities with other groups and agencies, provide training in water resources, and ensure compliance with applicable Federal, State, and local water resources requirements.

The nature of BLM involvement in water resources is based upon a number of executive and legislative mandates that apply directly to water resource management on Public Lands. These mandates are summarized and form the basis and justification of the program. A set of policy statements are presented to give definite direction to the Water Resources Program.

Specific responsibilities for the implementation of the program are also presented for the State and District organizational levels.

The Water Resources Program has a definite and discernible role in the resource management program of Idaho. For discussion purposes the program is subdivided into two components. The first part is the support role that water resources, through professional input of staff hydrologists, has to all Bureau activities which includes environmental planning and coordination, range, forestry, minerals, lands, recreation, wildlife, and engineering. This involves interaction with other resource specialists to provide water resource input to their programs. The second component is a functional one which deals specifically with the management, protection, and enhancement of the water resource, including:

- *the acquisition of water resource data through inventories & studies*
- *water quality management*
- *input to Bureau Planning System*
- *watershed rehabilitation and protection*
- *water supply, water yield and water rights*
- *cooperation, coordination, and liaison with other groups and agencies involved in water resources activities*

- *water resource training*

- *hydrologic data analysis & interpretation*

- *participation in administrative and programming activities*

Finally, program goals, target dates and cost estimates are presented. When approved, the program will require the placement of hydrologists on each of the Districts by FY 1981.

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I. INTRODUCTION

The BLM has been given the responsibility of maintaining and restoring the quantity and quality of waters on Public Lands. Concern over effects of grazing, timber harvesting, mineral development, recreational and wildlife uses on the nation's waters have surfaced when making resource management decisions. If the water resource is not adequately considered, protected and conserved through management, production of other renewable resources will rapidly decline.

The purpose for developing a water management program is several fold:

- *To provide guidance for the line manager in building water resource considerations into the land management program*
- *To give guidance to the field specialist (hydrologist) in fulfilling professional responsibilities, and*
- *To provide a sound basis for addressing the water resource in fiscal program and project planning.*

II. BUREAU RESPONSIBILITY IN WATER RESOURCE MANAGEMENT

The general public has become increasingly concerned with water as a resource on western Federal lands. This interest accelerated during the late 1960's and led to subsequent passage of numerous environmental quality laws and issuance of many Federal executive directives aimed at curtailing environmental degradation. Concurrent with the new "environmental awareness" era came a renewed realization that natural resources, water included, are finite and must be managed carefully. The decade of the 70's has brought such legislation as the Water Quality Act Amendments (P.L. 92-500), the Colorado River Salinity Control Act (P.L. 93-320), the Safe Drinking Water Act (P.L. 92-523), with the 1977 amendments (P.L. 95-190), and the Clean Water Act of 1977 (P.L. 95-217).

The Federal Land Policy and Management Act of 1976 (FLPMA) (P.L. 94-579) declares that:

> "...the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition..." (Section 102)

and that:

> "regulations and plans for the protection of public land areas of critical environmental concern be promptly developed..." (Section 102)

"the term, 'areas of critical environmental concern,' means areas within the public lands where special management attention is required to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards."
(Section 103)

Furthermore, FLPMA calls for a resource identification and inventory effort in which:

"The secretary shall prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values..."
(Section 201)

Also, it states that:

"In the development and revision of land use plans, the Secretary shall...provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans..."
(Section 202)

Other authorities affecting water resource management on public lands are reviewed in Appendix A.

III. POLICY

Since the Secretary of the Interior is committed by law to maintain or enhance the quality and various uses of water resource under his jurisdiction, and since the BLM is directly responsible to the Secretary, it shall be the policy of the Bureau of Land Management of Idaho to:

1. *Initiate and fully implement a system for inventorying the water resources on Public Lands in Idaho, and provide for the systematic collection, storage, retrieval, analysis, interpretation, and dissemination of water resource information, so that such data can be properly applied to land-use planning and as required by resource management activities.*

2. *Assure that the yield, legislatively mandated land management philosophies of multiple use and sustained, be applied to the water resource as it is to other resources.*

3. *Comply fully with the intent and objectives of all applicable federal legislation, executive orders, regulations and policies, and cooperative agreements pertaining to water resources on Public Lands in Idaho as funds and personnel permit.*

4. *Protect, maintain, restore, or enhance the quantity and quality of water on Public Lands in Idaho to or above legal water quality criteria. The water quality criteria are those defined by applicable state and federal laws and regulations.*

The following definitions are offered as an aid to understanding the program roles and responsibilities set forth later in this document.

Water Resources is the term which describes water as a renewable natural resource found above, on, in and below the surface of the land. Three characteristics of the water resource are also fundamental components used to describe the resource: water quantity, water quality, and timing of water flows. These three components are highly interrelated.

Hydrology is the (earth) science that treats (of) the waters of the earth, their occurrence, circulation and distribution, their chemical and physical properties, and their reaction with their environment, including their relation to living things (President's Council on Science and Technology, 1962).

Watershed Management can best be defined as the management of all the natural resources of a drainage basic with the objectives of production, protection, maintenance, or enhancement of its water resources in either a quantity (including timing) or quality sense, including the control of erosion and floods.

Wildland Hydrology is the discipline that applies the science of hydrology and the art of watershed management to land-use planning and resource management activities on wildlands. (Wildlands are non-urban, non-agricultural lands.) More specifically, it deals with the effects of all land management activities and associated wildland vegetation on the water cycle, including the effect on erosion, water quality, and the microclimate.

IV. OBJECTIVES OF THE WATER RESOURCES PROGRAM

Managers need to have a clear understanding of how the quality and quantity of surface and subsurface waters may potentially be affected by their decisions. It also is essential that they be aware of the relationship of water to other dependent resource values such as wildlife, recreation and range.

The goal of the Water Resources Program within the Watershed Activity (4340) is to provide basic water resource information and management service, to implement scientific multiple resource planning and management and maintain or enhance productivity and quality of the water resource. Within this framework, the major objectives are:

A. Provide water resource information through hydrologic services to management in land use planning, program planning, and project planning.

B. Ensure the compliance with applicable Federal/State laws and regulations dealing with water resources.

C. Coordinate the Bureau Water Resource Program activities with Federal, State and local agency representatives.

D. Increase the understanding between staff specialists and resource managers of the application of water resource information.

E. Provide training, formal as well as informal, for professional, technical and management personnel.

V. ROLE OF THE WATER RESOURCES PROGRAM

The Bureau of Land Management is responsible for the management of all natural resources (surface and subsurface) under its jurisdiction. A major part of this responsibility is the watershed management effort that must be oriented toward land management problems and opportunities. It must also be oriented to the numerous environmental concerns through conservation and enhancement practices.

The Water Resources Program consists of seven major tasks to be performed by hydrologic and watershed scientists:

A. Watershed resource management applies the science of hydrology, and insofar as it relates to BLM, is concerned primarily with the water resources of small to intermediate drainage basins. Several other disciplines, i.e., climatology, meterology, geology, biology, chemistry, physics, soil science, mathematics, and statistics must be utilized in the applycation of this natural science to land use planning, program planning and project planning. This means a role of active participation in interdisciplinary environmental studies, unit resource analysis (URA), management framework planning (MFP), activity planning, and on-site investigations in a consulting capacity.

B. Water resource investigations are necessary to evaluate the hydrologic processes on units of land. These constitute inventories of water quantity and quality information from which to evaluate management activities. In general, the greatest benefit will be in providing interpretations of data for the existing environment and predictions of probable impacts.

C. Disaster surveys describe the kind and amount of damage sustained to watershed values and a result of fire, flood, accidental chemical spills or other disasters. The program should also identify action necessary to restore lost water resource values.

D. Water quality management involves formulating best land management practices consistent with water quality objectives. This is accomplished through the Bureau Planning System and coordination with State water quality management planning and implementation.

E. Small watershed studies are needed to evaluate land treatments and watershed component interrelationships. This often involves the study of cause and effect relationships between management practices and the water resource.

These efforts will complement the activities of the water resource investigations and serve as a bridge between research and administration.

F. Internal coordination in the use and application of water resource information will be accomplished by "workshops" and "on-the-ground" instruction. Every effort will be made to transform technical data into understandable information for the user relative to the need. Land planners and decision-makers need to be aware of the hazards involved in land use options being planned and used. They also need to be aware of legislation, executive orders, regulations and policy pertaining to water resources as they apply to BLM programs.

Also, formal training of hydrologists and hydrologic technicians to maintain technical adequacy and to provide information in the use of new techniques and instrumentation is necessary to assure continued quality performance in specific job elements established for their position.

G. Coordination with other Bureau functions, other Federal, State and local agencies, research and industry representatives is a key item within the structure of the Water Resources (Watershed, 4340) Program. The strategy is to achieve a unified approach to solving mutual problems, to identify opportunities for the enhancement of soil and water resources and to avoid duplication of effort.

VI. THE WATER RESOURCES PROGRAM

The BLM Associate Director approved the new watershed responsibilities statement (Watershed Program thrusts) on March 16, 1977. The old Division of Watershed has been assigned the following responsibilities: Soils, Air, Water, Threatened or Endangered Plant Species, Emergency Rehabilitation, Paleontology, and Pesticides. Also included are technical coordination responsibilities for Surface Protection and Earth Sciences. (See Appendix D.)

The Water Resources Program for Idaho consists of two parts, in harmony with the above program thrusts. The first part is that of support to all other bureau activities (environmental planning and coordination, lands and realty, range, forestry, wildlife, minerals, recreation, engineering, fire and protection). This will generally constitute participation by the hydrologist to assist in management, development, and use of the resources in fulfillment of the activity goals.

The second portion of the water resources program is an operational one, the purpose of which is to establish and maintain a data acquisition program and to utilize this resource information in support of programs and projects intended specifically for protection and enhancement of the water resource.

A. Support to All Other Activities

One of the major tasks in the watershed program is that of providing "consulting services" to the line manager.

Management services are the direct application of hydrologic knowledge to specific situations in on-going and proposed resource development and management programs. These services include advice, counsel and design of specific or local protection measures for definite project and activity objectives relating to water quality and quantity, timing of flows (both surface and subsurface), flood control, sediment yield, channel stability, instream flow requirements, and water uses. Also included is participation on interdisciplinary planning teams at all field levels. Support will be documented by the specialist in the form of an assistance or staff report to management. These reports may be in the form of memorandum or formal reports.

As much as 50% of the staff hydrologists' time will likely be spent in a service role in other programs. These consultant roles are identified below, but are not necessarily limited to these roles.

1. Range Management

Range management practices have the potential for altering runoff patterns and water quality and quantity. Also, vegetation manipulation techniques have the potential for altering the sites' hydrology.

The functions of the hydrologist in the range management program include:

- *Provide hydrologic input to Allotment Management Plans, including the hydrologic implications of various grazing systems, and recommendations for stock water supplies.*

- *Provide the range manager with detailed climatological data which will assist him in determining precipitation-plant response relationships and climate-species relationships.*

- *Provide the range manager with up-to-date climatological data during the growing and other critical seasons.*

- *Determine the effects and benefits of various vegetation manipulation treatments upon the water balance, water yield and water quality of the proposed site.*

- *Identify sensitive areas, adverse effects of alternative systems, and monitoring needs; recommend preventative or mitigative measures to avoid or minimize impacts on the water resource.*

2. Energy and Minerals

Upland minerals exploration and development on Public Lands and the Federal mineral estate all have the potential for affecting surface and groundwater quantity and quality. In addition, most of these activities involve follow-up land rehabilitation efforts. Functions of the hydrologist include:

- *Recommending lease stipulations for water protection*

- *Monitoring and analyses of impacts upon the water resource due to significant minerals exploration and development activities*

- *Coordination of water supply and water rights for development and reclamation*

- *Hydrologic input to reclamation plans and operations*

- *Inventorying areas potentially unsuitable for minimg, such as alluvial valley floors or floodplains.*

3. Wildlife Habitat Management

The Bureau is responsible for managing terrestrial and aquatic-riparian-wetlands habitat on Public Lands. These management activities directly or indirectly involve the water resource.

The functions of the hydrologist in the wildlife and aquatic habitat management program include:

- *Provide hydrologic input to water supply developments and other developments*

- *Provide stream flow, peak flow, and water quality data to the biologist and aid in the hydraulic design of such structures as gabions, channel alterations, spawning channel developments, and impoundments.*

- *Assist the biologist in problems dealing with water quality degradation and improvement practices, and stream sediment and channel stability*

- *Provide the hydrologic/hydraulic input to instream flow determinations for wildlife and fisheries needs, and riparian wetland habitat inventory and management*

- *Coordinate the combined and overlapping issues of wetlands management, instream flow quantification, flood plain management, and water quality management, assisting the biologist and the planning staff in drafting policy and guidance directives covering the four above-mentioned activities.*

- *Provide input to vegetation manipulation and conversion projects.*

4. Recreation Management

The staff hydrologist can be of assistance to the recreation planner in several ways. For example, Bureau policy requires that a floodplain study be made of proposed recreation sites.

The functions of the hydrologist in the recreation program are:

- *Provide floodplain and water quality/quantity data for proposed recreation sites, and recreational uses of streams and rivers*

- *Provide snowpack, flood, health and avalanche hazard data to the recreation planner as applicable for recreation sites, and areas*

- *Assist the landscape architect and recreation planner in determining instream flow needs and recommendations for recreational uses*

- *Provide water quantity/quality data and coordinate water rights efforts in the Wild and Scenic Rivers program, and in wilderness area studies*

- *Identify water-oriented recreation opportunities based on suitability of water quantity and quality*

- *Identify impacts of management activities on recreational areas, identify sensitive areas, determine carrying capacities based on water quality, recommend preventative and mitigative measures to protect the esthetic, recreational, and health aspects of water*

- *Provide expertise in the monitoring of potable water supplies, primary contact recreational waters, and other waters of high recreational value*

- *Provide expertise and assistance in the location, selection and design of waste disposal systems.*

5. Lands and Realty

Processing of withdrawals, right-of-way applications, title transfers, and other occupancy and land use actions may require some assistance from the hydrologist, particularly where potential natural hazards may be involved.

Functions of the hydrologist may involve:

- *Floodplain, high water table, mass wasting, and avalanche zone delineation*

- *Determination of the level of risk associated with floodplains, avalanche zones, and other natural water-derived hazards*

- *Hydrologic considerations as they affect the values of land*

- *Determination of adequate water supplies (quantity and quality) for development*

- *Determination of use restrictions*

- *Participate in compliance checks of special use permittees and recommend mitigating measures to prevent or reduce impacts of proposed or existing permits.*

6. Forest Management

Most forest management practices have the potential for altering water quality, timing or quality. Forest treatments should be coordinated with water management objectives since tree harvesting may have a significant effect on the hydrologic cycle.

Functions of the hydrologist include:

- *To determine potential water yield increases resulting from silvicultural practices*

- *Provide hydrologic input data to the design of a forest transportation system*

- *Provide guidelines for protecting streamcourses*

- *Analyze the impacts upon the water resource that may occur during silvicultural operations, including harvesting, transportation, slash disposal, and disease and pest control*

- *Provide the forester with site-specific climatological information with which he can make silvicultural decisions*

- *Assist the forester in determining forest watershed management objectives relating to the improvement of water yield or timing.*

7. Engineering and Fire Management

Roads, bridges, and other structures and facilities have a potential for impacting the water resource, and conversely, for being impacted by water. The staff hydrologist may also be called upon by the fire management program to provide support.

The functions of the hydrologist may include:

- *Providing hydrologic data to the design engineer involved in designing roads, bridges, reservoirs, recreation sites, water facilities, and other structures*

- *Assist in the location of roads, stream crossings, and other facilities to avoid sensitive or hazardous areas, recommend measures to prevent or minimize impacts on the water resource*

- *Provide technical and procedural input to drinking water monitoring activities at recreation sites and other administrative sites*

- *Assist in the acquisition of climatological data for fire management*

- *Assist in fire control by locating water sources, and alternative fireline locations, etc., to minimize impacts on water*

- *Provide hydrologic input to post-fire rehabilitation efforts*

8. Other Watershed Management Programs

BLM staff hydrologists will have co-responsibility with the soil scientists and watershed specialists in air, earth sciences, emergency rehabilitation and pesticides. Hydrologists will also have co-responsibility with the soil scientists, range conservationists, and watershed specialists in any efforts related to soil erosion (where water is the principle transportation agent), soil water and sedimentation.

The hydrology staff may assist and be involved in the following areas of responsibility:

- *Climatology*

- *Earth Sciences: Well site investigations and fluvial geomorphology*

- *Pesticides: Water quality implications*

- *Emergency Rehabilitation and Surface Protection: Rehabilitation teams will include a hydrologist responsible for water quality considerations, water control structures, and other associated water resource related functions.*

B. WATER MANAGEMENT ACTIVITIES

The Bureau of Land Management is responsible for the management of all natural resources under its jurisdiction, including the water resource. Water management is the operational part of the Water Resources Program, which is designed to maintain a basic data acquisition program and to utilize this resource information in support of programs and projects specifically for the protection and enhancement of the water resource. Each Bureau activity draws on this data bank, and it is through use of this information that sound management decisions are possible.

1. Inventory of Water Resource Information

In accordance with Section 201 of Public Law 94-579, a multi-level inventory and assesment of the water resources on public lands in Idaho will be initiated in FY 81 and implemented fully by FY 83. This inventory will be a systematic one involving several levels of intensity and purpose.

These levels shall include reconnaissance, benchmark, municipal or critical community watersheds and special studies. Bench mark stations are those stations where long-term data records are generated. Long-term records are needed to establish base levels of hydrologic parameters and to provide statistical sampling reliability. Special studies include Administrative Study Watersheds, the monitoring of resource development activities or management actions, or other short-term investigations. Types of data to be collected include, but are not limited to, precipitation, evaporation, snow surveys, infiltration, runoff and streamflow, water quality, channel geometry, soil water, groundwater, stream bedloads, and related climatological data.

In keeping with the guidelines set forth in Office of Management and Budget Circular A-67, the inventory will be coordinated, to the maximum extent possible, with the U.S. Geological Survey - Water Resources Division's national network for water resources data. All water data collection activities are covered under OMB Circular A-67 with the exception of precipitation, evaporation, snow surveys, soil water, and climatological data. Also, special studies, experimental data, and short-term data collection are exempted from OMB's guidelines. Where economically feasible and programmatically desirable from a funds and manpower standpoint, water data collection for special and short-term studies may be contracted to the Water Resources Division of the USGS in Idaho.

a. Reconnaissance surveys are low intensity hydrologic surveys used to characterize the water resource and its potentials for broad planning purposes. They may be conducted at two levels. The first level is based on the analysis of available data from which very broad interpretations and applications are made, such as for State, District, and river basin planning. The second level of survey is based largely on the analysis of available data supported by short-term, low intensity field sampling on more specific areas, such as land use planning units. Elements of this survey include intermittent grab sampling for water quality, miscellaneous flow measurements, short-term climatic data, stream condition surveys and compilation of existing hydrologic studies.

b. Benchmark surveys are those in which long-term records are needed to establish statistically reliable baselines of water quantity and/or quality, to quantitatively characterize watersheds, and to determine trends as a result of management activities. Their primary purpose is to characterize the water resources of public lands in the State (or District) and to monitor long-term changes in quantity and quality. Information from these stations is also essential for land use planning purposes, for an assessment of pollution sources to assist in water quality management planning, for evaluating water quality in relation to water quality standards, for determining impacts of management activities on a watershed basis, and for developing and evaluating predictive models and management guidelines.

c. Special studies are short-term, intensive investigations (less than 1 to 5 years) designed to monitor individual management activities or to investigate specific problems for administrative purposes. Short-term monitoring of management activities that are controversial or may have a significant impact on the water resource is needed to quantify the impacts, determine cause and effect relationships, evaluate the effectiveness of management controls, to develop management guidelines and prediction techniques, and to identify problem areas and recommend corrective measures. Other administrative studies may include such topics as the following:

- Regional ground water resources investigations for adequacy of supplies.

- Evaluation of predictive models for runoff and sediment loads from ungaged areas.

- Evaluation of vegetative cover influences on runoff and erosion and development of prediction equations.

2. Water Quality Management

The primary water quality objective is for protection and/or enhancement of water quality for on-site and downstream uses. Water quality will be maintained at a level beneficial to the whole environment and to the health and welfare of local communities and other water users. Compliance with this objective will be through a coordinated regional water quality effort. The quality of the water yielded at any point within a watershed is recognized as an excellent indicator of the influence of land management activities above that point. It also serves as a measuring tool which can aid management in establishing the amount, kind, or combination of activity to allow. Water quality surveillance is a tool of management which can be initiated in order to gather the information necessary to select management alternatives and predict their consequences.

The water quality management program will be viable and defensible to meet legislated requirements and BLM direction by:

1. *Quantitatively defining the existing quality of water resource including its natural inherent variability.*

2. *Evaluating significant ongoing management activities with respect to the water resource.*

3. *Identifying watershed sensitivities and estimating watershed responses to each land management practice to prevent water quality degradation.*

4. *Identifying waters of unacceptable quality, quantifying the extent of those problems and leading in rehabilitation planning.*

5. *Identifying watersheds where more stringent water quality constraints are necessary to protect specific uses.*

In accordance with the intent of the cooperative agreement with EPA regarding water quality management planning and Washington Office Instruction Memo 76-454, the watershed staff in Idaho will have lead responsibility in Section 208 and 404 efforts. The Engineering Branch of Technical Services will handle the 404 requirements where they apply. The Water Resources Program must include participation with Federal, State, and local agencies in water quality management planning and in formulation of rules and regulations attendant thereto. Examples of involvement efforts include:

- *Serving in an advisory capacity in Section 208 planning efforts, ensuring that Bureau planning and policy are incorporated in the State water quality management plans. Of principle concern is the development of nonpoint source pollution controls ("best management practices") for resource development and management activities affecting water quality, such as range management, forest management, mining activities, and construction activities*

- *Working with Corps of Engineers in development of PL 92-500 Section 404 general permits where they pertain to BLM administration*

- *Ensuring that BLM management and development practices are in line with the National Water Quality goals of 1983 and 1985, and assisting resource managers in the compliance with water quality standards*

3. Hydrologic Monitoring of Significant Resource Development and Management Actions

Hydrologic input to specific subactivities is covered under Chapter VI Section A. All major or politically sensitive resource development or land management actions shall be monitored if surface or subsurface water resources are involved. This monitoring shall be done in conjunction with EAR's and ES's and shall be performed for the express purpose of ensuring compliance with State and Federal water quality standards, as well as for satisfying a mitigating measure or providing additional baseline data for the environmental assessment effort. Compliance includes our commitments under PL 92-500, Sections 208 and 404. In addition to ensuring standards compliance, such monitoring can be used to support the Bureau's actions in a court of law.

Monitoring of watershed protection and stabilization projects, fire rehabilitation efforts, and other surface protection efforts will be carried out to analyze the hydrologic effectiveness of these measures.

The BLM in Idaho will be active in measuring, collecting and analyzing water data. Each field office so involved shall have the capability

to perform routine water measurements and laboratory analyses. Such measurements and analyses will include, but not be limited to, stream and river stage and velocity, water depth in lakes and wells, snow depth and water content, precipitation, basic climatological parameters, water turbidity, suspended sediment and stream bedload, in situ total dissolved solids or electrical conductivity, water temperature, water pH, and stream channel geometry. Besides the equipment necessary to support the above tasks, each field office will have the capability to perform basic water quality laboratory analysis procedures such as determination of suspended sediment, major chemical constituents, and bacteriological parameters. If the field office is close to a government or commercial lab facility, an in-house water quality lab may not be necessary.

4. Administrative Study Watersheds

The BLM in Idaho will attempt to implement a series of small administrative study watersheds for the purpose of studying the effects of various resource development activities and administrative decisions on water yield and timing and water quality as data needs arise. The watersheds shall be located so as to be representative of major hydrophysiographic regions, vegetation types, and elevation ranges. The results from such "indicator watersheds" will be used in the Bureau Planning System to provide hydrologic guidelines for resource development programs and to provide the line manager with information, such as Best Management Practices, upon which to base land management decisions. Watershed management activity plans may either be based upon or may include an administrative study watershed.

5. Hydrologic Input to Bureau Planning System

The hydrologist will provide or assist in the development of water resource input to both the Bureau Planning System and to environmental assessment efforts. BLM hydrologists will also review hydrologic inputs to the planning system, environmental statements and environmental assessment records. Guidelines may be provided to the planning staff in the form of recommended changes to the manual system. These changes will be coordinated with similar efforts underway in other states and in the Washington Office.

The first requirement of the Water Resources Program is to provide a continuing inventory and data base of the water resource for the planning system, that can be drawn upon by all other activities in their planning and development needs.

This inventory is the information source for Step 2 and 3 water resources discussion of the Unit Resource Analysis (URA), which will be used in the development of Step 4, the identification of management and treatment opportunities. The information is also utilized in

identifying limiting physical factors and in developing the ecological profile of the planning area. The hydrologist should also be involved in the development of alternatives, determination of preventative and mitigative measures, and determination of hydrologic impacts of proposed actions and alternatives. Water resources, therefore, have an active role in environmental assessments and studies, unit resource analysis (URA), management framework planning (MFP) and activity and project planning.

6. Water Supply Development, Water Yield and Water Rights

The hydrology staff shall have lead technical responsibility for locating, developing and ensuring the quality of water supplies on Public Lands, including the coordination of necessary legal filings and claims processed through the Department of Justice. This will require close coordination with the benefiting activity and/or action program and with the Division of Resources. The Resource staff will continue to provide expertise to the water resources program in the area of water rights.

Well site investigations will be performed on all future well-drilling programs. Well site investigations will be the responsibility of the hydrology staff, with input from the groundwater geologist on the Energy and Minerals staff. All requests for investigations relating to water supply development will be made to the State Office Hydrologist.

Responsibility for coordinating the instream flow quantification effort will also reside in the water resources program. Other programs which share this responsibility are wildlife and fisheries habitat management, recreation, range management and fire management.

Water yield opportunities in the form of increased water yields, altered timing of runoff, low flow augmentation, or snow cover management will be identified by the staff hydrologists in the Bureau Planning System, in Allotment Management Plans, in Habitat Management Plans, in Forest Management Plans, and Watershed Management Plans. Such water yield improvements may be accomplished primarily through vegetation manipulation or through snowpack management. Such practices will also be evaluated by the hydrologist, soil scientist, soil conservationist and/or watershed specialist in terms of improving plant-available soil water supplies.

Under the Safe Drinking Water Act of 1974, the Bureau is responsible for ensuring the quality of all waters developed for public drinking supplies. This responsibility applies to community watersheds and to any and all water supplies which are regularly used for culinary water. The hydrology staff will have the lead technical role under this Act for policy matters and technical coordination and direction. The Technical Services staff shall continue to be responsible for the operational and engineering aspects of water developments.

7. Watershed Restoration and Maintenance

The BLM watershed program in the late 1950's and up to the mid-1960's consisted of water control practices with a minimum of range improvement work. Many large detentions, diversions, and dike systems were designed and contracted. At that time, it was felt large structures were the answer to reducing sediment discharge to the stream network. Ideas began to change in the mid-1960's and water control structures gave way to AMP's and range management concepts. This concept continued on until FY 76 when the annual work plan (AWP) reflected a new definition of the watershed subactivity (4340). Project work primarily in support of the range program (4320) was shifted to that program. The new watershed program, thus, will place major emphasis on the protection and enhancement of the soil and water resources. That message is spelled out clearly in the Bureau "Watershed Program Thrust."

This component of the program calls for water resource (hydrology) input to Watershed (4340) activity planning and management. This generally involves an interdisciplinary team effort (hydrologist, soil scientist, vegetative specialist) and would include the following activities:

a. *Conduct watershed inventories which include such components as susceptibility to sheet erosion, vegetative cover condition, stream channel condition, bank vegetation and sediment yield.*

b. *Preparation of watershed activity plans intended to restore lost watershed values resulting from overuse, fire or natural disaster. This includes: evaluating values lost and opportunities for enhancement, recommending treatments, such as contour furrowing, deferred use, fertilization, seeding, water spreading, sediment entrapment, or snow management; and recommending the best treatment in veiw of resource potential and cost/benefit analysis.*

c. *Providing input to design of watershed rehabilitation or development projects, such as treatments suggested above, detention structures, ground water development or water distribution systems.*

d. *Monitoring watershed response to management practices; being prepared to recommend modification of these practices if the watershed in question is experiencing deterioration of water resource values. Input to decisions regarding maintenance of individual structures, improvements or treatments.*

8. Hydrologic Data Analysis and Interpretations

The hydrologists in the water resources program will be expected to utilize appropriate data analysis procedures for hydrologic data and provide both data and interpretations to the line or project manager

when requested. A set of computer programs will be available for this purpose as a part of the Water Data Storage and Retrieval System.

All hydrologists in the BLM-Idaho will be expected to have current knowledge of the hydrologic conditions within their respective administrative unit and geographical area.

Staff hydrologists in the BLM-Idaho will be called upon frequently for service functions for many different activities in the state. Recommendations, analyses, field inspections, etc., will be likely products of these service functions. In order to catalog and archive these efforts, BLM hydrologists in the state will adopt a system of Hydrology Staff Reports. These reports may take the form of memoranda to line managers, staff specialists, or other BLM offices. (See Appendix B.) It is important that hydrology reports, regardless of form of conveyance, be uniform in content and format throughout the state. Accordingly, guidelines for writing hydrology staff reports will be drawn up by the hydrology staff and approved by the District Managers and State Director. Each hydrology report will by keyed to the Water Data Storage and Retrieval System with the use of a watershed coding system. Copies of all reports will be centrally archived in the State Office using the coding system.

9. Water Data Storage and Retrieval System (WDSRS)

Hydrologists are required to rely frequently on numerical data. These data may come from hydrologic inventories or from the data banks of other agencies. The BLM in Idaho will develop and maintain a statewide automated data storage and retrieval system which will accommodate all types of hydrologic data collected by BLM hydrologists, including those data collected by other agencies which are used frequently for BLM purposes. The WDSRS will be designed so that it can be readily interfaced with the data management system called for under the BLM Strategic Plan.

10. Liaison Responsibilities with Other Federal and State Water Resource Personnel and Programs

It shall be the responsibility of each hydrologist in the Bureau in Idaho to develop and maintain good working, technical relationships with other water resource professionals in the various Federal and State agencies involved with water in Idaho. Technical cooperation should include such activities as cooperative field studies, technical committees, interchange of data and ideas, and interagency agreements. The following list includes most of the Federal and State agencies with whom such relationships should be developed:

USDA Forest Service - Regional Hydrologist and Forest Hydrologists
USDA Soil Conservation Service - Snow Survey Unit and Watershed Planning Staffs

USDI Geological Survey - Water Resources Division
USDC National Weather Service
USDI Bureau of Reclamation
USDI Fish and Wildlife Service
Corps of Engineers - 404 Permitting Unit
Environmental Protection Agency
State Climatologist
State of Idaho - State Engineer's Office, Dept. of Water Resources
University of Idaho, College of Mines and Civil Engineering
Idaho State Fish & Game

The State Office Hydrologist shall maintain close contact with other BLM State Office hydrologists, Service Center and Washington Office hydrologists. In addition, the State, District and Area hydrologists will be encouraged to attend professional meetings of interest to Water Resource professionals. At this time, no society or organization exists for wildland hydrologists. As a substitute, the Western Snow Conference annual meeting offers a good, informal forum for discussion of wildland hydrology problems, issues, and new research. Other meetings of interest include the Fall Meeting of the American Geophysical Union and the annual meeting of the American Water Resources Association. Various specialty conferences in hydrology are frequently held in the western states and may be recommended for attendnace by BLM hydrologists, if applicable to BLM functions.

BLM hydrologists in Idaho should assume a co-leadership role with Forest Service hydrologists in technical matters dealing with wildland hydrology in the State. In addition, BLM should assume a lead role in technical matters concerning rangeland hydrology.

VII. RESPONSIBILITIES

Any program, to be successful, must have a clear definition of responsibility at each organizational level. The responsibilities for the Water Resources Program are assigned as follows:

A. The State Director with assistance from the Chief, Division of Resources, and staff hydrologist.

1. Provide the districts and activity managers with up-to-date interpretations of Departmental and Bureau policy and Federal and State legislation as they pertain to water resources.

2. Coordinate the Water Resource Program with the overall Watershed Program (4340) in terms of funding and program priorities.

3. Annually (before AWP preparation) review all District Water Resources Programs for quality control and AWP input.

4. Prepare AWP program directives and program emphasis statement for the State at the beginning of each fiscal year.

5. Coordinate water resources studies and investigations between districts and neighboring States and other State and Federal agencies.

6. Provide centralized support in areas, such as computer services, interagency agreements, and cooperative programs.

7. Establish technical standards for the conduct of water resources data acquisition and interpretation programs.

8. Ensure technical adequacy of planning documents pertaining to water resource and implementation programs.

9. Provide training opportunities and technical leadership for the field specialists.

10. Ensure statewide compliance with Bureau policy, legislative requirements and executive orders pertaining to water resources.

11. Advise the districts on selection of specialist personnel for filling vacancies or program expansion.

12. Formulate water rights policy and deal with the States and the Field Solicitor in water rights matters. Conduct an active program of water rights acquisition.

B. District manager with involvement of his Chief of Resources and district hydrologist(s).

1. Establish a District Water Resource Program to be in harmony with State program, but specific to needs and concerns of the district. See Appendix "C" for guidelines.

2. Annually review and modify that program in light of new policy, legislation, AWP directives and State Office review.

3. Implementation of the Water Resource Program as outlined in Chapter V of this document.

VIII. STAFFING OF HYDROLOGISTS IN THE ORGANIZATIONAL STRUCTURE

Hydrologists are staff specialists in the BLM organizational structure within Idaho.

Administratively, the state hydrologist does not have supervision authority over the district hydrologists. The same is true for the relationship between district and area hydrologists; however, a certain degree of technical direction and interaction must exist. The state hydrologist is responsible for the state-wide water resources program including technical and budgetary planning aspects under the State Director and the district hydrologists are likewise responsible for district water resources programs under the District Managers.

In this structure, the state hydrologist has the following responsibilities:

1. Monitors and manages on a state-wide basis the water resource program based upon advices contained in the AWP and ensures the technical adequacy of this program, dealing specifically with forest and range hydrology as it applies to all resource functions.

2. Coordination and assurance of technical adequacy for all water quantification activities on public lands in Idaho.

3. Assures the development and technical adequacy of district programs and activities in hydrology.

4. Assures the development, preparation, and submission of Directives, AWP's and Packages dealing with water resources.

Thus, the state office hydrologist has the technical lead for the water resources program and for hydrologic activities in the state. District hydrologists should have identical roles and responsibilities as they apply at the district level. Likewise, area hydrologists should function similarly at the area office level.

All new hydrologists in the BLM-Idaho will attend an orientation session in the State Office. The orientation will include an introduction to the state-wide water resources program, meetings with water resources officials in other agencies, and field review of hydrology projects and data collection techniques.

By FY 81 it is hoped all district resource staffs can be staffed with a hydrologist and by FY 83 all detached area offices in the state can be staffed with a hydrologist.

IX. GOALS OF THE WATER RESOURCES PROGRAM, FY 81 - FY 85

The following chart depicts the manpower and funding for the state-wide water resources program in Idaho. This proposal is flexible and will be changed to reflect changing priorities and funding.

WATER RESOURCE MANAGEMENT, STATE WIDE PROGRAMMING,

MANPOWER AND FUNDS FY 81-85

	FY 81		FY 82		FY 83		FY 84		FY 85	
	MM's	$(000's)	MM's	$(000's)	MM's	$(000's)	MM's	$(000's)	MM's	$(000's)
1. Professional Personnel (State, District, Area Hydrologists)	100	220	110	242	130	299	140	312	150	360
2. Equipment Purchases and Maintenance	--	40	--	45	--	50	--	55	--	60
3. Training and workshops (MM's included in #1)	--	5	--	5	--	6	--	6	--	7
4. Sub-Programs (hydro-meteorology, snow management, water quality, studies)	23	131	35	210	38	456	40	560	40	600
TOTALS	123	396	145	502	168	811	180	932	190	1,027
Cost per Acre (based on 13 million acres)		.03		.04		.06		.07		.08

APPENDICES

The following appendices are included in this section:

A. Review of Legislation and Executive Directives Pertaining to Water Resources Management on Public Lands in Idaho.

B. Suggested Format for Hydrology Staff Reports.

C. District Water Resources Management Programs

D. Bureau-wide Water Resources Thrust
   - Supportive Memoranda
   - New WO Watershed Thrust Document

E. District Inputs to State-Wide Program

F. Technical Guidelines for Water Resources Professionals (reserved)
   - Instruction Memoranda
   - Manual Supplements
   - Hydrology Staff Reports
   - Guidelines for Watershed Activity Plans
   - BLM Instream Flow Guidelines

G. Sub-Programs (reserved)
   - Water Quality Management Plans (Section 208 plans)
   - Snow Management
   - Instream Flow Quantification
   - Hydrology Training
   - Water Resources Inventory Method

H. Glossary of Technical Terms (reserved)

APPENDIX A

Authority

The nature of the Bureau of Land Management's involvement in water resources is based on several executive and legislative mandates that apply directly to water resource management on Public Lands.

A. *Legislation*

1. *Federal Water Pollution Control Act of July 9, 1956, as Amended. (33U.S.C. 466 et seq.) The purpose of this act is to enhance the quality and value of the water resource and to establish a national policy for the prevention, control, and abatement of water pollution. Among the important provisions are authority for the State and Federal Governments to establish water quality standards; provision for water pollution grants for research and development, control programs, construction of treatment works, and comprehensive programs for water pollution control; enforcement measures against pollution of inter-State or navigable water; direction to control pollution from Federal facilities; and provision for the control of pollution by oil, hazardous substances, or sewage from vessels. The Basic Act (P.L.84-660), is amended by the Federal Water Pollution Control Act Amendments of 1961 (P.L.89-234); the Clean Water Restoration Act of 1966 (P.L.89-753); Title I, the Water Quality Improvement Act of 1970 (P.L.91-224); and Title I, National Environmental Policy Act of 1969 (P.L.91-224).*

2. *Water Protection and Flood Prevention Act (P.L. 566) of August 4, 1954, as Amended. (68 Stat. 666, 16 USC 1001.) This act authorized the Secretary of Agriculture to cooperate with the States and their political subdivisions and local public agencies, in preventing watershed damages from erosion, floodwater, and sediment, and in furthering the conservation, development, utilization, and disposal of water. Needed works of improvement may be designed and installed for the purpose. The act also authorized the Secretary to cooperate with other Federal, State, and local agencies in making investigations and surveys of the watersheds of rivers and other waterways, as a basis for planning and developing coordinated programs.*

3. *Water Quality Act of 1965. (70 Stat. 498.) This is an amendment to the Federal Water Pollution Control Act of July 9, 1956. It provides that the intent of the Congress is for the Federal Government to cooperate with State agencies or municipalities preventing or controlling pollution of waters over which they have jurisdiction.*

4. *Clean Water Restoration Act of 1966. (80 Stat. 1246.) This act provides for development of cooperative water quality control and abatement plans under the leadership of the Secretary of the Interior. This is an amendment to the Federal Water Pollution Control Act.*

5. *Wild and Scenic Rivers Act of October 2, 1968. (82 Stat. 906.) This act provides for selected rivers of the Nation to be preserved in a free-flowing condition; establishes a National Wild and Scenic River System; designates all or parts of 8 rivers as initial components of the system; provides procedures and standards for additional components; and provides direction for essential program elements as river studies, land acquisition, water resource project restrictions, and compensation for water rights. The three subclassifications in the system are: wild river areas, scenic river areas, and recreational river areas. Section 12. (C) states that the head of any agency administering a component of the Wild and Scenic River System shall cooperate with State water pollution control agencies for the purpose of eliminating or diminishing the pollution of waters of the river.*

6. *National Environmental Policy Act of 1969. (83 Stat. 852.) This act (P.L. 91-190) states that continuing policy of the Federal Government, in cooperation with State and local governments, and other concerned public and private organizations, is to use all practicable means and measures to create and maintain conditions under which man and nature can exist in productive harmony. Agencies of the Federal Government are directed to interpret and administer policies; regulations, and public laws in conformance with the act to the fullest possible extent. Among the provisions are requirements to (1) utilize a systematic, interdisciplinary approach to planning and decision making; (2) prepare, for major Federal actions, a detailed statement on environmental impacts, alternatives to the proposed action, and irreversible commitments of resources; and (3) institute and utilize ecological information in the planning and development of resource-oriented projects. (This Act has far-reaching impacts on BLM activities. Existing water resource information is inadequate to characterize the resource and assess land use impacts on the remote headwaters of Public Lands.)*

7. *Water Quality Improvement Act of 1970. (84 Stat. 91) A major feature of Title I of this amendment of the Federal Water Pollution Control Act (P.L. 91-224) requires Federal agency compliance with water quality standards.*

8. *Federal Water Pollution Control Act Amendments of 1972, October 18, 1972, (P.L. 92-500) This is a very complex law which established a national program to eliminate pollution of the nation's waters by 1985 and provides for State control of pollution programs and plans but requires extensive Federal coordination. It requires that Federal agencies comply "with Federal, State, interstate, and local requirements respecting control and abatement of pollution to the same extent that any person is subject to such requirements...." Section 404 requires Federal agencies to obtain permits for dredging and placement of fill in navigable waters. Of particular concern are BLM's responsibilities in Section's 208 and 303 water quality planning which requires exchanging data, revising standards and developing "Best Management Practices" (BMP), for the control of nonpoint source pollution. All of these efforts require extensive water data to*

support the establishment of reasonable standards and assessment of cause-effect relationships. Section 505 authorizes citizen suits against persons, including the United States, who are alleged to be in violation of the act.

BLM has a cooperative agreement with EPA to participate actively with States, with which the BLM has participated in an advisory capacity. The principle concern is the implementation of BMP's and establishment and enforcement of nonpoint source controls which can indirectly affect the management of Public Lands.

9. *Colorado River Basin Salinity Control Act of 1974, June 24, 1974, P.L. 93-320. This directs the Department of the Interior to undertake research and develop demonstration projects to identify methods to improve the water quality of the Colorado River. This will involve inventory and collection of flow and salinity data, plugging of wells and developing management alternatives.*

10. *Safe Drinking Water Act of 1974, December 16, 1974, (P.L. 92-523). The act provides for the safety of drinking water supplies by establishing and enforcing national drinking water quality standards. The act gives the States responsibility for enforcing the standards and supervising public water supply systems and sources of drinking water. Under the act, Federal agencies must comply with the regulations and citizen suits may be brought against any party believed to be in violation of the act. The National Interim Primary Drinking Water Regulations, pursuant to the act, not only gives maximum contaminate levels in drinking water, but also lists requirements for frequency of monitoring, analyses to be conducted, utilization of approved laboratories, reporting of data and violations, record keeping, and public notification.*

11. *Federal Land Policy and Management Act of 1976, October 21, 1976, (P.L. 94-579). This law established the legislative base ("Organic Act") for the BLM. Section 102 declares that "the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values...." Section 201 requires that an inventory of all Public Lands and their resource and other values be prepared and maintained on a continuing basis, with emphasis on areas of critical environmental concern. The extent and intensiveness of the inventory has not been established, but for water resources it is envisioned to be extensive, as data are lacking on quantity and quality of water on wildland watersheds for both downstreams and for adjudication of instream requirements for BLM -public use.*

Section 202 requires land use plans to be developed that are in compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards.

12. *Surface Mining Control and Reclamation Act of 1977, August 3, 1977. P.L. 95-87. Considerable hydrologic information will be required in operators permits. A great deal of impact will be made on acquisition of water data from agencies. BLM and GS will need to gather information also which will relate to decisions on whether or not certain lands may be unsuitable for coal mining (Section 522) and noncoal mining (Section 601). They may also be involved in determining "probable hydrologic consequences" (Section 507 (b)(11) of mining and reclamation.*

B. *Executive Orders and Other Guidance*

1. *President's Letter of May 26, 1954. Although not issued as an Executive Order, this letter to the Secretary of the Interior created the Interagency Committee on Water Resources and established interagency participation in river basin planning. Following this action by the President, the Federal agencies concerned executed a memorandum of agreement which assigned interagency cooperation to coordinate water and related land resource activities.*

2. *OMB (Office of Management and Budget) Circular A-67 (August 28, 1964) This circular provides guidelines for coordination of water data activities and states that the Geological Survey acquires basic water data on the water resources of the Nation. It further states that other agencies acquire special water data in support of their respective missions, and that these activities be closely coordinated to assure effective and economical management of resources.*

3. *Executive Order 11288 of July 2, 1966. (F.R. Doc. 66-7460.) This order requires the heads of agencies to provide leadership in the field of water quality management. It requires that Federal facilities develop pollution abatement plans and preventative measures for the discharge of hazardous waste into waters.*

   The order provides review and serveillance of all Federal Government activities and for periodic reports on plans and progress. This order is partially superseded by Executive Order 22507.

4. *Executive Order 11507 of February 4, 1970. This order states that the Federal Government in the design, operation, and maintenance of its facilities shall provide leadership in the nationwide effort to protect and enhance the quality of air and water resources. It provides that action necessary to correct air and water pollution at existing facilities is to be completed or underway not later than December 31, 1972. It provides for surveillance to ensure that water quality standards are met.*

5. *Executive Order 11514 of March 5, 1970 as amended by Executive Order 11991, May 24, 1977. This order states that the Federal Government shall provide leadership in protecting and enhancing the quality of the Nation's environment to sustain and enrich human life. It provides*

for monitoring, evaluation, and control on a continuing basis of the activities of each Federal agency so as to protect and enhance the quality of the environment. Agencies shall also develop programs and measures to protect and enhance environmental quality, and exchange data and research results and cooperate with other agencies to accomplish the goals of NEPA.

6. *Executive Order 11752 of December 17, 1973. E.O. 11752 mandates that Federal agencies shall provide national leadership to protect and enhance the quality of air, water, and land resources through compliance with applicable Federal, State, interstate and local pollution standards. This order crossreferences the need to comply with several "environmental acts" such as the Clean Air Act, Federal Water Pollution Control Act, Solid Waste Act, Noise Control Act, Insecticide and Pesticide Acts, and NEPA.*

7. *Executive Order 11990 of May 24, 1977, Protection of Wetlands. This requires that each agency shall take action to minimize destruction or degradation of wetlands and preserve and enhance the values of wetlands. One action that is required is to coordinate programs and resources of Federal agencies.*

   This EO will involve extensive inventory of Federal wetlands, evaluate the hydrologic aspects and develop stipulations or restrictions for permitting use or withdrawal of wetlands.

8. *Executive Order 11988 of May 24, 1977, Floodplain Management. Each agency is directed to minimize risk of flood loss and impact on human health and safety. The BLM must inventory its potential floodplains. This requires development of extensive flow data for areas not presently gauged and the analysis of that data for interpretations as flood plain delineation and development of subsequent restrictions or use of flood plains. The BLM must incorporate floodplain management into any water and land use plans.*

APPENDIX B

1. Guidelines for Hydrology Staff Reports

To meet Bureau of Land Management directives and policy that establish both quantity and quality goals, basic hydrologic inputs must be provided for all resource development and management programs, and land use and functional planning. This input may consist of an assistance or staff report developed by the hydrologist and presented to management. It should contain, but not be limited to, the following elements where applicable.

- An on-site investigation characterizing the present water resource.
- A description of the problem where and when it occurred.
- An assessment and identification of watershed quality standards and tolerance levels based on the resource situation.
- The identification and quantified estimates of the magnitude of the proposed activity on watershed (water resource) values.
- The identification of site potential to meet planned objectives.
- The identified feasible mitigating measures and the expected effectiveness of maintaining quality within acceptable tolerance levels.
- A prediction of risk regarding the proposed action with the selected mitigating measures.
- An interpretation or analysis from water resource investigations and/or data.
- A recommendation prescribing:
  (1) New or additional data requirements
  (2) Necessary funds and manpower
  (3) On-site work necessary to achieve mitigating measures
  (4) Guidance measures needed to avoid such problems in the future
  (5) Incorporation into planning system update.

Such report should become part of a permanent record for the benefit of those who follow.

APPENDIX C

1. Guidelines for Development of District Water Resources Programs

The purpose for developing a District program is three-fold:

- Where possible, to ensure that water resource information needs and input requirements are addressed and planned for, with enough lead time to facilitate quality input.

- To provide meaningful input to development of District and State annual work plans.

- To provide a documentation of accomplishments (studies carried out, data recorded, etc.) for the benefit of future projects and programs.

The District programs should be specific in nature and updated at least annually to reflect changes in program priorities and accomplishments. They should contain at least the following elements:

A. Assignment of District responsibilities for the program components spelled out in Chapter V of this Program Statement.

B. A plan for accomplishing the hydrologic surveys described in Chapter VI, Section B of this Statement. This plan should complement the scheduling of Bureau priority programs such as MFP updates, EIS projects and activity plan preparation (AMP's, coal leasing, etc.). The plan should be specific as to objectives, geographic areas, method of study and time frame.

C. Data network needs per Chapter VI, Section B of this Program Statement. Include specifics such as: objectives, location of gages, sampling points, etc., methods and period of operation.

D. Plans for securing legal rights to the use of water for support of Bureau activities.

It is intended that each District program be reviewed annually, prior to annual work plan time, by ISO-930, for the purposes of quality control and obtaining AWP input pertaining to water resources.

APPENDIX D

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

August 25, 1976

Instruction Memorandum No. 76-454
Expires: 6/30/77

To: Directorate, Division Chiefs, and AFO's

From: Associate Director

Subject: Assignment of Lead Responsibility for Water Resources Council (WRC), Environmental Protection Agency (EPA), and U.S. Army Corps of Engineers (COE) Programs Which Have Been Handled Jointly by Watershed (350) and Environmental and Planning Coordination (220)

The basic criterion we followed in making these lead assignments is to have Environmental and Planning Coordination (E&PC) lead when the principal focus is planning or interagency planning coordination management. Watershed is designated lead when the principal focus is program implementation and/or related primarily to technical or policy aspects of air or water.

On the basis of the above described criterion, the following lead assignments are made:

Program	Lead
1. WRC general contact and liaison	Watershed
2. WRC Principles and Standards	Watershed
3. WRC National Water Assessment	E&PC
4. WRC Levels A, B, and C River Basin Studies	E&PC
5. WRC Technical Committees	Watershed
6. Overall Implementation of the Federal Water Pollution Control Act Amendment (PL 92-500)	Watershed

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

6a. Sections 208 and 303 Water Quality Programs (EPA administered)	E&PC through development and approval of Sec. 303 Basin Plan and Sec. 208 Areawide Water Treatment Plan. Watershed for plan implementation.
6b. Sec. 404 Dredge and Fill Permits (COE administered)	Watershed
7. Clean Air Act (42 USC 1857) Sec. 103, Air Quality Program	E&PC through development and approval of State Air Quality Management Plan. Watershed for plan implementation.

Thus, for the EPA items, the lead will change on individual geographic planning areas when the State air or water quality management plans are approved by the authorized EPA official.

George Nishimoto, regional planner, is assigned lead staff responsibility within E&PC since the interagency coordination work involved is quite similar to his other coordination assignments for Coastal Zone and HUD 701 planning.

Don Willen, Staff Hydrologist, has the lead within Watershed. The assigned work is closely associated with his other hydrology and water quality responsibilities.

State Directors and Service Center Director are encouraged to apportion the lead responsibility between staffs to match the duties described above for the appropriate WO Divisions. It is imperative that close coordination continues between these staffs, especially during the current formative program and legislative changes in progress by EPA and COE.

Watershed is also the liaison with the Department's Water Resources Policy Coordination Staff (formerly Office of Land Use and Water Planning), and is the lead coordinator for "Lower Colorado River Water Acquisition."

George L. Turnbull

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IN REPLY REFER TO:

1782 (350)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

August 26, 1977

Instruction Memorandum No. 77-433
Expires: 6/30/78

To: All Washington Officials; SD's; Director, ESO; SCD; Mgrs., OCS Offices; DM's

From: Director

Subject: Compliance with Corps of Engineers' Permitting Regulations by Bureau of Land Management, Starting July 19, 1977. Public Law 92-500, Section 404 and the River and Harbor Act of 1899

The U.S. Army Corps of Engineers' revised regulations on permitting activities under the River and Harbor Act of 1899 and the Federal Water Pollution Control Act, as amended, have been in full implementation since July 19, 1977.

The regulations, as the result of court order and interpretation, redefined "navigable waters" for permitting activities (only).

The regulations and legal requirements affect all Bureau of Land Management (BLM) programs, but do exempt certain specific actions. The Corps of Engineers' regulations exempt emergency actions from permitting activities such as fire control and drought relief. All Bureau actions other than emergencies must be in compliance with those regulations.

The Bureau of Land Management, Washington Office, is drafting Manualized direction on the subject. The Manual Section is being prepared by the Division of Watershed (350) and the Division of Wildlife (360), under the title "Wetland-Riparian Habitat Management and Permit Compliance." The Draft Manual Section should be released within 60 days for State Office review.

The enclosed directions will be operative until completion and release of the final Manual Section. These instructions are to be added to guidance provided in Public Law 92-500 and the River and Harbor Act of 1899.

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These instructions are intended to provide guidance to BLM officials in compliance with the Department of Defense, Department of the Army, Engineers Corps' Regulatory Programs of the Corps of Engineers.

George L. Turnbull
Acting

5 Enclosures
Encl. 1 - Outline Directions
Encl. 2 - Memo - Review Permit Applications
Encl. 3 - Memo - Permits Identification
Encl. 4 - Memo - Request for Time Extension, Public Notice _____, Dated May 27, 1977
Encl. 5 - Memo - Public Notice No. 77-183

United States Department of the Interior

1782 (350)

BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240

April 22, 1977

Instruction Memorandum No. 77-227
Expires: 12/31/77

To: All Field Officials

From: Assistant Director, Resources

Subject: Coordination - Bureau of Land Management and U.S. Geological Survey, Water Resources Division and Geologic Division

The Bureau of Land Management is obtaining an increasing amount of surface water, water quality, and ground water data, and general geologic information due to the following:

1. Extreme drought conditions in large regions of the West;

2. Recent assumption of responsibility for water well site investigations from the Geological Survey (GS);

3. Requirements of the Safe Drinking Water Act (Public Law 93-523) to identify and protect from pollution "sole or principal drinking water aquifers;"

4. Needs of ES's, URA's, MFP's, AMP's;

5. Requirements of the Organic Act for resource inventories.

As the State Offices develop geologic, surface water and ground water programs for data collection, routine monitoring, analysis, and interpretations they should establish and maintain close contact with their appropriate GS counterparts. This close consultation is imperative since the GS is the principal Federal agency responsible for the national collection and publication of water resource and geologic data.

Frequent communications between the BLM and GS at all levels of organization will:

1. Minimize duplication of effort;

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2. Aid the BLM in developing surface water and ground water programs and geologic data collection and interpretations;

3. Inform the GS of BLM's activities and needs for long-term surface water, ground water and geologic data needs;

4. Allow the BLM to take advantage of current GS programs and file data.

State Offices that are involved or will be involved with water well site investigations, basin evaluation of ground and surface water resources, water quality studies, geothermal development, selection of sites for stream gauging stations, evaluation of geologic hazards, determining geologic conditions for engineering design and construction, evaluating geologic "areas of critical environmental concern," and determining the presence of toxic elements in geologic formations should work closely with the U.S. Geological Survey, Water Resources Division and Geologic Divison.

Roman H Koenigs

Concurrence Sheet

The recommendations of the Watershed Study have been reviewed and accepted. Concurrence or nonconcurrence with each recommendation for functional assignment is indicated below.

Program Responsibilities	concur	disagree	undecided
Soils Management	/X/	/__/	/__/
Air Quality	/X/	/__/	/__/
Water Resources	/X/	/__/	/__/
Pesticides Management	/X/	/__/	/__/
Emergency Rehabilitation	/X/	/__/	/__/
Threatened and Endangered Plants	/X/	/__/	/__/
Technical Coordination			
Surface Protection	/X/	/__/	/__/
Earth Sciences	/X/	/__/	/__/

George L. Turcott

George L. Turcott

3/16/77

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II. Scope and Approach

In September 1976 the Division of Watershed completed a proposal to restructure its program thrusts. The impact of the restructuring on Bureauwide functional assignments dictated a broader examination of the questions, issues, and alternatives. In October Management Research accepted the lead in conducting this broader examination.

This report sets forth background, information, findings, and recommendations resulting from the October study effort. It is based upon an anlaysis of the September Watershed proposal. However, the scope has been expanded to several additional related functions. The approach has been modified in that all State Offices were interviewed, as well as key Service Center and WO Officials. One further modification was that this study was performed by an interdisciplinary team drawn from various W.O. staffs. For analytical purposes, all the responsibilities within the area of consideration have been categorized below. While this categorization does impart to all readers a common frame of reference, it cannot be applied too strictly.

Areas of Consideration

Skills

Hydrology
Water Quality
Soils Science
Vegetation (Agronomy, Botany, etc.)
Pesticide
Earth Science (environmental geology, geomorphology, etc.)
Fire Ecology
Physical Science
Watershed

Processes

Rehabilitation
Surface Protection
Coordinated Resource Inventories

Programs

Soils Management
Water Resources Management
Air Quality
Emergency Rehabilitation
Pesticides Management
Threatened and Endangered Plants

IV. Major Recommendations

1. That WO-350 be designated as the Bureau focal point for the following responsibilities:

Water Resources Program
Emergency Fire Rehabilitation Program
Threatened and Endangered Plants (guidance pursuant to PL 93-205)

Pesticides (guidance pursuant to PL 92-516)
Air Quality (guidance pursuant to I.M. 76-454)

Soils
Earth Sciences
Hydrology
Surface Protection (coordinating role)

2. That each activity (in consultation with a qualified specialist) identify the role of each area of expertise listed above in planned activities.

3. That the Bureau acquire a Pesticide Specialist.

4. That Surface Protection be defined in such a way as to limit it to preauthorization actions.

5. That Compliance be defined in such a way as to limit it to post authorization actions.

6. That program divisions continue an active role in Surface Protection matters within their jurisdiction; that WO-350 be assigned a coordination and support role.

7. That the Washington Office place more emphasis upon the accountability vested in its field office managers for compliance.

8. That W.O. 350 retain its present title.

VII. Water Resources Management
(Hydrology)
(Water Quality Specialists)

A. Discussion

The Federal Water Pollution Control Act 1/ requires: (1) input to the formulation of "area-wide water treatment plans (this is applied to all Bureau actions which affect water quality such as recreation sites, salinity, pesticides and other pollutants originating within land under Bureau administration); (2) The establishment of water quality standards and plans (since the Bureau will be bound by these standards, every effort should be made to participate in their formulation); and (3) Permits from Corps of Engineers for discharge of dredge or fill materials into "navigable" waters.

The Colorado River Salinity Act - requires the identification and implementation of measures which will reduce the salinity of waters that flow from the NRL into the Colorado River.

The Water Resources Development Act - requires the use of Water Resources Council "Principles and Standards" for water-related developments.

Organic Act requirements related to water resources management are:

1. Resource Inventories

2. Land-use Planning

3. The receipt of "fair-market value for the use of public lands and their resources, and

4. Compliance with applicable pollution control laws.

Information Memorandum 76-2 refers to an appeals court decision. The court struck down EPA regulations which excused Federal agencies from compliance with State and local water pollution standards in California and Washington. The decision requires full compliance by Federal agencies and instrumentalities with State and local requirements with respect to water pollution. Other States will probably tend to follow this decision.

All EISs prepared to date for energy-related actions and those in preparation for range and forestry actions reflect a high degree of importance for consideration of water. Still, in many instances water and soils data have been found to be insufficient for management decisions. The expertise within BLM has also been inadequate.

1/ Cooperative Agreement between BLM, EPA, and State and Area Water Quality Management Planning Agencies (I.M. No. 76-10).

A new phase could be incorporated into the Bureau Planning System (at a very early decision point within the existing system). This phase would include a preplanning analysis that would be designed to determine whether available data is commensurate with the magnitude and type of decisions to be made. After needed data and its degree of detail have been identified, inventories could be scheduled. Present Bureau URA level data are usually insufficient to meet the sophisticated requirements of recent legislation.

There are no official watershed planning procedures. However, the draft procedures for "Coordinated Activity Plans" are being implemented on pilot watershed areas in Red Creek, Utah; Bear Creek, Oregon; and Rio Puerco, New Mexico.

There is a need to update activity planning procedures in Range, Forestry, Wildlife and Recreation to show the role to be played by water within their respective activity plans.

The Washington Office hydrologist's role would be providing policy and guidance for PL 93-251, EO 11296, Water Rights, PL 566, and hydrologic aspects of Watershed and River Basin Planning Activity. At the State Office level, hydrologists would carry out policy and procedures prescribed by the Washington Office hydrologist in the areas of: Water Rights, Watershed and River Basin Planning, and PL 93-251 and PL 566.

Providing policy and direction for Bureau water program implementation will require a Water Quality Specialist. Implementation of this program bears a direct relationship to activities in Range, Forestry, Lands, Recreation, Minerals, and Wildlife. The Washington Office Water Quality Specialist's role would be the preparation of regulations and policy regarding: PL 92-500; salinity projects, E.O. 11514; and E.O. 11752. He would also: develop procedures for State Offices to use in the collection, storage and interpretation of water data within a State network design; coordinate with Wildlife regarding consideration of fisheries impacts; and provide guidance on salinity (in studies and programs similar to the Colorado Salinity Study).

B. Findings

1. Several Bureau activities can have direct impacts on water quality.

2. URA data on water quality is generally inadequate.

3. Other Federal and State agencies have developed capabilities and mechanisms in water quality which BLM can make use of.

C. Alternatives

Functional Assignment

1. Assign each activity responsibility for the water quality impacts of its actions.

2. Assign water quality responsibilities to the Assistant Director 400.

3. Assign water quality responsibilities to WO-350.

Alternative 1 is somewhat myopic in that it deals only with water quality impacts arising from resource management activities. The Bureau's responsibility extends far beyond this. Another failure of this alternative is that it does not create a WO focal point for coordination, interagency planning and program oversight. The idea of incorporating accountability into resource management decisionmaking is well served by this alternative.

Alternative 2 has several strengths. The operational aspects of implementing water quality plans could be well performed by engineers. WO-440 is currently responsible for water pollution reports under Executive Order 11758. The program aspects of planning, coordinating, and managing a total Water Resources Program would not be compatible with the Technical Services concept.

Alternative 3 creates a Washington Office focal point. It closely associates water quality and soils management with renewable resource management. It provides broad management overview by allowing water quality, hydrology, and well-site investigations, flood control and other associated elements to be combined under a Water Resources Program and managed jointly.

Staffing

1. Establish a policy of relying on other government and pseudo-governmental agencies to provide all BLM's hydrology and water quality expertise.

2. Relying upon the current hydrology/water quality workforce for technical review, BLM can use contracting to provide necessary data and expertise.

3. On the basis of the legal requirements previously cited, BLM can seek enough hydrology/water quality specialist positions to assure uninterrupted fulfillment of basic needs yet still allow full utilization of established sources of data and skills.

Alternative 1 does not require any increase in permanent positions, it fully utilizes the mechanisms and skills that State agencies and USGS have already assembled. However, the availability of agencies such as the Soil Conservation Agency and the Geological Survey to perform tasks when needed is a serious question.

Alternativ 2 offers flexibility in that one can contract for specific capability and experience as the need arises. It offers more immediate results as permanent positions are difficult to obtain. Even with positions in hand, locating and attracting professionals can be a time-consuming and uncertain task. Contracting cannot offer the benefits that an agency derives from the association of its professional employees with one another on a full-time basis. Contracting cannot assure a manager immediate availability of expertise in addressing unexpected issues.

Alternative 3 assures that Bureau managers will always have expertise at their disposal for day-to-day needs as well as for special projects. It creates a career-ladder for Bureau employees in this field. Over a period of time it creates a body of experts familiar with unique, Bureau problems, systems, and management styles. It assures a reasonable level of quality control in work performances.

All alternatives are based on the assumption that full utilization will be made of the recognized technical capabilities of other agencies. Specifically, the USGS will continue to be used in the establishment and maintenance of water monitoring stations. BLM hydrologists will: identify data needed, specify how to collect data, interpret these data, and collect supplemental data for special purposes. BLM will establish stream gauges, monitoring sites and laboratories only when it is found to be most efficient to do so.

D. Recommendations

1. Adopt Alternative 3 under Functional Assignment.

2. Adopt Alternative 3 under Staffing.

3. BLM should develop a Water Resources Program carefully gauged to supplement the existing and available resources of other agencies.

4. Field Offices and WO-350 should closely evaluate the technical and numerical adequacy of the Bureau's water quality expertise.

5. Establish a position for a Water Quality Specialist in WO-350.

XIII. Watershed Specialists

A. Discussion

Individuals assigned watershed responsibilities over the past several years usually had an academic background in range conservation or range management. Very few were trained as soil scientists, hydrologists, or geologists. As such, they were really individuals familiar with the Bureau's Range Program that had some interest in soil conservation and the application of treatments used in support of the Range Program. Consequently, they were assigned the role of surveying and designing projects identified by the District or Area Manager. They also proposed and administered contracts awarded for construction and maintenance of facilities and treatments. Major responsibilities in the last eight years have been to complete the Watershed Conservation and Development Phase I Inventory and to provide input into URAs and MFPs. Phase I is now 95 percent complete. New responsibilities in soils and water have created the need for involvement in contract studies, a role for which watershed specialists are not technically qualified. Because of these changes, some watershed specialists regard their assignments as less desirable. Others have adjusted to a role of team work with new employees having soil science and hydrologist qualifications. This has proven to be a valuable combination by having the watershed specialist's years of experience and appreciation of Bureau needs combined with new capabilities of our soil scientists and hydrologists.

The watershed specialists' role of advising the Chief of Resources in the management of 1260 funds is not likely to change. However, in those State Offices having watershed specialists, soil scientists, and hydrologists, the watershed specialist is assuming a much greater responsibility in the coordination of all funding for soils and water resource investigation, regardless of funding source. This provides for more efficient use of the technical background of all three disciplines.

B. Findings

1. The watershed specialist's role has been seriously impacted by the trend towards more specialized skills.

2. Many offices (and their watershed specialist) appear uncertain as to the technical role of the watershed specialist.

3. Most watershed specialists do not possess the academic background needed to meet their changing role.

C. Alternatives

Staffing

1. Abolish the watershed "specialist" designation within the Bureau.

2. Seek bona fide watershed specialists to fill the Bureau's needs.

3. Reassign current watershed specialists to a coordinating role between specialists such as soil scientists, hydrologists, air quality specialists, geologists, and biologists, and retain the role of advisory managers on program management of funds used by these specialists.

4. Shift the technical role of those watershed specialists qualified in botany or plant physiology to that of vegetation.

Alternative 1 is not practical in that there are still some technical functions in BLM for which the watershed specialist is well suited. Additionally, several offices now employ or are recruiting graduates with watershed management degrees.

Alternative 2 is valid where there is a need for highly specialized capabilities in watershed management and where other specialists such as soil scientists, hydrologists, geologists, air quality specialists and biologists have already adjusted to the Bureau.

Alternative 3 is a much needed role in some offices; in others it would only add another management layer and should be considered as a temporary role until the Bureau adjusts to the expanded role of new technical capabilities.

Alternative 4 allows those watershed specialists who may be qualified to provide expertise which they now possess. In these situations it could be one source of vegetative specialists for Bureau offices.

D. Recommendation

1. The Bureau should adopt Alternative 3 or 4 depending on local conditions and staffing considerations.

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WO-65

COORDINATION OF
WATER POLLUTION CONTROL
AGREEMENT OF JANUARY 5, 1976
between
BUREAU OF LAND MANAGEMENT
and
ENVIRONMENTAL PROTECTION AGENCY

I. Purpose. This agreement provides policy direction and program guidance for coordinating planning between the Bureau of Land Management (BLM), the Environmental Protection Agency (EPA), and the State and areawide water quality management planning agencies designated pursuant to Section 208 of P.L. 95-500, the Federal Water Pollution Control Act Amendments of 1972 (FWPCA), where National Resource Lands or other BLM administered lands are significantly involved.

II. Objectives.

A. To provide for the necessary exchange of information between State and areawide 208 planning agencies, BLM, and EPA.

B. To provide State and areawide 208 planning agencies and EPA with BLM technical assistance.

C. To facilitate BLM's compliance with the substantive requirements of State and areawide water quality management plans.

III. Background.

Section 208 of the FWPCA provides for the identification of complex water quality problem areas, and the designation of agencies in those areas to do water quality management planning. The State is responsible for Section 208 planning in all areas which are not designated and for coordination of all 208 planning within the State.

The coordination which is sought between BLM planning and Section 208 planning is essential since planning for nonpoint source pollution control and subsequent implementation of those controls is required by Section 208 and by court order for all areas of each State, including National Resource Lands. Control of nonpoint sources in many cases will involve land management practices. For this reason, and because BLM planning and 208 planning have similar perspectives, they must be coordinated to prevent duplication of effort and to avoid conflicting recommendations on resource management.

All initial 208 plans must be completed by the court-imposed deadline of November 1, 1978. Planning by local agencies is underway and the States are required to do 208 planning for all areas where 208 planning is not being performed by an areawide agency. Of equal importance to meeting the deadline, however, is the establishment of the basis for continuing cooperation and integration of the planning process.

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IV. Authority.

A. P.L. 92-500, 86 Stat. 816, 33 U.S.C. 466.

B. P.L. 86-649, 74 Stat. 506, 43 U.S.C. 1361.

C. P.L. 90-577, 82 Stat. 1098, 40 U.S.C. 531.

D. P.L. 91-648, 82 Stat. 1590, 5 U.S.C. 3371.

E. Executive Order 11752.

F. 40 C.F.R., Parts 130 and 131.

G. Cooperative Agreement of September 25, 1973 between the Department of the Interior, Agriculture, the Army, and the Environmental Protection Agency (listed as WO-54 in BLM Compilation of National Level Cooperative Agreements).

V. Policy.

A. It is EPA policy:

1. To ensure that State and areawide 208 agencies involve appropr BLM State and district offices in all stages of 208 planning and implementation;

2. That 208 State and areawide agencies should arrange for techni assistance and planning data directly with appropriate BLM offices and p vide reimbursement to BLM when such technical assistance cannot be given within normal budgets;

3. That State and areawide 208 agencies develop implementation program in conjunction with appropriate BLM offices that are in harmony with present and prospective BLM budgets and plans;

4. To encourage the development of cooperative agreements between State 208 agencies and BLM leading to the fulfillment of State responsibilities for 208 planning and Federal/State responsibilities for implementation on National Resource Lands.

B. It is BLM policy:

1. That BLM plans are to be coordinated with the water quality management planning within a State as organized under the State continu planning process to the greatest extent possible and at the earliest op tunities;

2. That State and district offices will participate in an advis capacity and provide technical assistance to State and areawide water quality management planning agencies within their available manpower co mitments and priorities;

3. To coordinate BLM budget priority criteria to conform with water quality management planning and implementation requirements to the greatest extent possible; and

4. To encourage BLM acceptance of water quality management planning and implementation responsibilities where BLM administered lands dominate the planning area.

VI. Coordination of Planning.

A. BLM. Each BLM State Director should work closely with the State 208 Planning Agency Director to establish joint priorities and consistent timing of planning wherever possible. Those joint priorities should be reflected in the State continuing planning process and the BLM State planning priorities.

In the Bureau of Land Management, each district must develop a public participation plan for each Management Framework Plan (MFP) prior to the start of the preparation or revision process. The plan identifies the public participation strategy during all phases, including development of the planning decisions.

Close coordination and communication between BLM and 208 agencies shoul result in plans which are compatible with the goals of each. If this communication is not effective, BLM should forward any reservations or objections directly to the EPA Regional Administrator responsible for approving or disapproving the plan.

If the 208 agency is providing significant input to BLM plan preparation, 208 plan recommendations should be incorporated into BLM plans according to one of the following three procedures:

- BLM planning completed.

In this case the district office would provide technical resource socio-economic data to areawide or State 208 planning agencies, and parti ipate with and provide technical assistance to 208 agency staff. If it is apparent that proposed 208 plans will have a major impact (when implemented) on BLM resources or plans, then the Management Framework Pla must be revised after analyzing the impacts. If major impacts are not expected then the Management Framework Plans only need to be updated to reflect implementation of the 208 plan.

- BLM planning in process.

In this case coordination with 208 planning agencies should be at the earliest possible date. Contact points should be covered in the Public Participation Plan. Data should be exchanged and 208 implementati

impacts should be analyzed using the Planning Areas Analysis and Management Framework Plan process.

- BLM planning not started.

In this case BLM district offices would contact 208 planning agencies for initial coordination. Where BLM planning is not contemplated in the near future it is imperative that district offices work closely with the 208 planning agencies, providing them with available information and analyzing the potential impacts of 208 planning on National Resource Lands. In the event major impacts are expected on National Resource Lands then BLM planning may need to be initiated on the area.

1. Technical inputs to the 208 planning agency. Information may be provided by (1) advisory technical assistance, (2) technical assistance (3) the Intergovernmental Personnel Act (P.L. 91-648) transfers, (4) data exchange, or (5) other feasible methods.

2. Points of potential input to 208 planning. The State continuing planning process is the overall water quality management planning system for the entire State, including Section 208 planning by the State in all nondesignated areas. Specific elements of the State continuing planning process which must be addressed and which may serve as points of potential input are:

a. A description of coordination with Federal comprehensive, functional, and developmental planning activities including land use and other natural resources planning activities;

b. A description of intergovernmental input in the development and implementation of water quality management plans, including participation on the planning area policy advisory committee;

c. A cooperative agreement between the State and EPA on level of detail and timing of planning including delineation of potential local agency designations, identification of nonpoint source problem areas, and scheduling of all water quality planning;

d. Provision for water quality planning in all areas including Federal lands.

B. State and areawide planning agencies.

Both State and areawide planning agencies have the option of using other agencies, including BLM, to develop portions of 208 plans. Cooperative agreements should be developed between 208 agencies and BLM which will lead to the fulfillment of State responsibilities for 208 planning and Federal/State responsibilities for implementation on National Resource Lands. Where water quality planning for BLM lands is conducted by an

agency other than BLM, the State and district offices should provide cooperation and support in formulation and implementation of the Section 208 plan.

Section 208 implementing and operating responsibilities may rest with several agencies. Any 208 plan involving BLM or Federal lands must clearly delineate the Federal land manager's responsibilites with respect to assuring compliance to the plan in regard to Federal lands, including his authority to establish more stringent requirements.

1. Points of potential input to BLM planning. There are several point in the BLM planning process where direct 208 planning agency input may be beneficial. All concerned and interested citizens, either individually or in organized groups, and Federal, State, and local agencies, have an opportunity to contribute their knowledge, ideas, and proposals, and express their opinions and preferences in the planning process. The key public involvement points are:

a. Prior to planning. 208 Agency input in preparing the public participation plan would develop general awareness and understanding of the issues and processes involved and their possible participation points.

b. During formulation of resources program recommendation. 208 Agency input may be directed at providing specific information, expression of opinions and preferences on how the public lands should be managed, and review of the various recommendations.

c. During analysis of divergent recommendations and alternatives identification. 208 Agency input could help assess the varied public interests and expressions and provide the land manager with a better basis for decisionmaking.

d. Decision development. The 208 Agency could provide input in review of the final recommendations and the stated rationale in arriving at the final recommendations for the Management Framework Plan.

VII. Implementation of 208 plans on National Resource Lands.

A 208 plan must address arrangements for implementation during plan development so that once the plan has been completed, adopted, and approved implementation may begin. If BLM has made significant inputs at all stages of 208 plan development there should be agreement in this area. Appropriate BLM offices should be seriously considered as the implementing/operating agency for nonpoint source controls for all

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National Resource Lands. Both the 208 Agency and the BLM State Director should provide written explanation to the EPA Regional Administrator, if BLM is not to be the implementing agency.

/s/ Andrew E. Breidenbach
Assistant Administrator
for Water and Hazardous Materials
Environmental Protection Agency

DATE: Jan. 5, 1975

/s/ George L. Turcott
Associate Director
Bureau of Land Management

DATE: Jan. 5, 1975

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